

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-36. (Cancelled)

37. (Three Times Amended) A semiconductor device comprising:

(a) a semiconductor chip having a plurality of semiconductor elements and bonding pads formed on a main surface thereof;

(b) a lead frame having:

a chip mounting portion for mounting said semiconductor chip;

a plurality of leads; and

suspension leads continuously formed with said chip mounting portion,

said semiconductor chip being mounted on said chip mounting portion;

(c) an insulating tape adhered to at least said plurality of leads and said suspension leads;

(d) bonding wires electrically connected to said plurality of leads with said bonding pads of said semiconductor chip respectively, and

(e) a resin member sealing said semiconductor chip, said bonding wires, said insulating tape, said chip mounting portion, a part of each of said suspension leads, and at least a portion of said plurality of leads,

wherein a size of said chip mounting portion is smaller than that of said semiconductor chip.

wherein said insulating tape has a frame shape and is continuously formed between said suspension leads and said plurality of leads,

wherein said chip mounting portion is positioned under a substantially central portion of said semiconductor chip,

wherein said semiconductor chip is fixed to said chip mounting portion by an adhesive,

wherein said semiconductor chip is fixed to a part of each of suspension leads by an adhesive, and

wherein said suspension leads and said chip mounting portion of said lead frame are continuously formed in an area of said semiconductor chip.

38. (Unamended) A semiconductor device according to Claim 37, wherein said resin member has a rectangular shape, wherein said suspension leads extend from said chip mounting portion toward four corners of said resin member, and wherein said plurality of leads are arranged between said suspension leads in a plane view.

39. (Unamended) A semiconductor device according to Claim 37, wherein said insulating tape extends along four sides of said resin member to surround said chip mounting portion and said semiconductor chip in a plane view.

40. (Three Times Amended) A semiconductor device comprising:
(a) a semiconductor chip having a plurality of semiconductor elements and bonding pads formed on a main surface thereof;

(b) a lead frame having:

a chip mounting portion for mounting said semiconductor chip;

a plurality of leads; and

suspension leads continuously formed with said chip mounting portion,

said semiconductor chip being mounted on said chip mounting portion;

(c) an insulating tape adhered to at least said plurality of leads and said
suspension leads;

(d) bonding wires electrically connected to said plurality of leads with said
bonding pads of said semiconductor chip respectively, and

(e) a resin member sealing said semiconductor chip, said bonding wires, said
insulating tape, said chip mounting portion, a part of each of said suspension leads,
and at least a portion of said plurality of leads,

wherein a size of said chip mounting portion is smaller than that of said
semiconductor chip,

wherein said insulating tape has a frame shape and is continuously formed
between said plurality of leads and said suspension leads,

wherein said insulating tape includes a base insulating film and an adhesive
layer applied to one surface of said base insulating film, and

wherein said insulating tape is adhered to said plurality of leads and said
suspension leads by said adhesive layer,

wherein said chip mounting portion is positioned under a substantially central
portion of said semiconductor chip,

wherein said semiconductor chip is fixed to said chip mounting portion by an
adhesive,

wherein said semiconductor chip is fixed to a part of each of suspension leads by an adhesive, and

wherein said suspension leads and said chip mounting portion of said lead frame are continuously formed in an area of said semiconductor chip.

41. (Unamended) A semiconductor device according to Claim 40, wherein said base insulating film includes a polyimide resin and said adhesive layer includes an acrylic resin.

42. (Three Times Amended) A semiconductor device comprising:

(a) a semiconductor chip having a plurality of semiconductor elements and bonding pads formed on a main surface thereof;

(b) a lead frame having:

a chip mounting portion for mounting said semiconductor chip;

a plurality of leads; and

suspension leads continuously formed with said chip mounting portion,

said semiconductor chip being mounted on said chip mounting portion;

(c) an insulating tape adhered to at least said plurality of leads and said suspension leads;

(d) bonding wires electrically connected to said plurality of leads with said bonding pads of said semiconductor chip respectively, and

(e) a resin member sealing said semiconductor chip, said bonding wires, said insulating tape, said chip mounting portion, a part of each of said suspension leads, and at least a portion of said plurality of leads,

wherein a size of said chip mounting portion is smaller than that of said semiconductor chip,

wherein said insulating tape has a frame shape and is continuously formed between said plurality of leads and said suspension leads,

wherein said lead frame having a first surface and a second surface opposite to said first surface, wherein each of said suspension leads has a step portion so that said first surface of said chip mounting portion is positioned to the side of said second surface of said plurality of leads rather than the side of said first surface of said plurality of leads, and

wherein said insulating tape is arranged outside said step portion of each of said suspension leads,

wherein said chip mounting portion is positioned under a substantially central portion of said semiconductor chip,

wherein said semiconductor chip is fixed to said chip mounting portion by an adhesive,

wherein said semiconductor chip is fixed to a part of each of suspension leads by an adhesive, and

wherein said suspension leads and said chip mounting portion of said lead frame are continuously formed in an area of said semiconductor chip.

43. (Unamended) A semiconductor device according to Claim 43, wherein a part of each of said suspension leads, which is located outside said step portion, is substantially at a same level as portions of said plurality of leads in a thickness direction of said lead frame.

44. (Once Amended) A semiconductor device comprising:

(a) a semiconductor chip having a plurality of semiconductor elements and bonding pads formed on a main surface thereof and a rear surface opposite to said main surface;

(b) a lead frame having a first surface and a second surface opposite to said first surface, said lead frame having:

a chip mounting portion for mounting said semiconductor chip;

suspension leads continuously formed with said chip mounting portion;

and

a plurality of leads;

(c) a plurality of bonding wires electrically connected to said plurality of leads with said bonding pads of said semiconductor chip respectively; and

(d) a resin member sealing at least said semiconductor chip, said bonding wires, said chip mounting portion and at least portions of said plurality of leads,

wherein a size of said chip mounting portion is smaller than that of said semiconductor chip,

wherein said semiconductor chip is mounted on said chip mounting portion, such that said rear surface of said semiconductor chip is bonded to the side of said first surface of said chip mounting portion by an adhesive, and such that a part of each of said suspension leads, which is located under said semiconductor chip, is spaced from said rear surface of said semiconductor chip,

wherein said chip mounting portion is positioned under a substantially central portion of said semiconductor chip,

wherein said semiconductor chip is bonded to the part of each of suspension

leads by an adhesive, and

wherein said suspension leads and said chip mounting portion of said lead frame are continuously formed in an area of said semiconductor chip.

45. (Unamended) A semiconductor device according to Claim 44, wherein said adhesive layer is provided on said first surface of said chip mounting portion and is not provided on said part of each of said suspension leads which is located under said semiconductor chip.

46. (Unamended) A semiconductor device according to Claim 45, wherein a part of said rear surface of said semiconductor chip, which is located outside said chip mounting portion, is adhered to a part of said resin member.

47. (Unamended) A semiconductor device according to Claim 46, wherein said resin member includes a thermosetting resin.

48. (Unamended) A semiconductor device according to Claim 44, wherein said adhesive layer includes an epoxy resin.

49. (Once Amended) A semiconductor device comprising:

(a) a semiconductor chip having a plurality of semiconductor elements and bonding pads formed on a main surface thereof and a rear surface opposite to said main surface;

(b) a lead frame having a first surface and a second surface opposite to said

first surface, said lead frame having:

a chip mounting portion for mounting said semiconductor chip;

suspension leads continuously formed with said chip mounting portion;

and

a plurality of leads;

(c) a plurality of bonding wires electrically connected to said plurality of leads with said bonding pads of said semiconductor chip respectively; and

(d) a resin member sealing at least said semiconductor chip, said bonding wires, said chip mounting portion and at least portions of said plurality of leads,

wherein a size of said chip mounting portion is smaller than that of said semiconductor chip,

wherein said semiconductor chip is bonded to said chip mounting portion by an adhesive between said rear surface of said semiconductor chip and said first surface of said chip mounting portion,

wherein each of said suspension leads has a part which is located under said semiconductor chip,

wherein a part of said resin member is formed between said part of each of said suspension leads and said rear surface of said semiconductor chip,

wherein said chip mounting portion is positioned under a substantially central portion of said semiconductor chip,

wherein said semiconductor chip is bonded to the part of each of suspension leads by an adhesive, and

wherein said suspension leads and said chip mounting portion of said lead frame are continuously formed in an area of said semiconductor chip.

50. (Once Amended) A semiconductor device comprising:

(1) a semiconductor chip having a main surface and a rear surface opposite to said main surface, said semiconductor chip having a plurality of semiconductor elements and bonding pads formed on said main surface;

(2) a lead frame including:

a first suspension lead for supporting said semiconductor chip, extending in a first direction;

a second suspension lead for supporting said semiconductor chip, extending in a second direction which is different from said first direction, said second suspension lead intersecting said first suspension lead; and

a plurality of leads, said plurality of leads being arranged to extend toward an intersecting portion of said first and second suspension leads;

(3) a plurality of bonding wires electrically connecting at said plurality of leads with said plurality of bonding pads, respectively; and

(4) a resin body sealing said semiconductor chip, at least a portion of said plurality of leads, said first and second suspension leads and said plurality of bonding wires,

wherein said semiconductor chip is disposed on said intersecting portion of said first and second suspension leads,

wherein a width of each of said first and second suspension leads at the vicinity of said intersecting portion is wider than that of each of said first and second suspension leads at vicinities beyond said semiconductor chip,

wherein said rear surface of said semiconductor chip is fixed to said first and

second suspension leads at the vicinity of said intersecting portion by an adhesive,

wherein said intersecting portion is positioned under a substantially central portion of said semiconductor chip,

wherein said semiconductor chip is bonded to a part of each of suspension leads by an adhesive, and

wherein said suspension leads and said intersecting portion of said lead frame are continuously formed in an area of said semiconductor chip.

51. (Unamended) A semiconductor device according to Claim 50, wherein said first and second suspension leads intersect each other at a substantially right angle.

52. (Unamended) A semiconductor device according to Claim 51, wherein said resin body has a tetragonal shape, wherein said plurality of leads extends toward four sides of said resin body, and wherein said first and second suspension leads extend from said intersecting portion toward four corners of said resin body.

53. (Unamended) A semiconductor device according to Claim 50, wherein a portion of said rear surface of said semiconductor chip is adhered to said intersecting portion of said first and second suspension leads, and wherein another portion of said rear surface of said semiconductor chip is contacted with said resin body.

54. (Unamended) A semiconductor device according to Claim 51, wherein said semiconductor chip has a tetragonal shape, and wherein said wider portion at

the vicinity of said intersecting portion of said first and second suspension leads extends from a central portion of said rear surface of said semiconductor chip toward four corners of said semiconductor chip.

55. (Once Amended) A semiconductor device comprising:

(1) a semiconductor chip having a main surface and a rear surface opposite to said main surface, said semiconductor chip having a plurality of semiconductor elements and bonding pads formed on said main surface;

(2) a lead frame including:

a chip mounting cross for mounting said semiconductor chip;

a plurality of suspension leads which are continuously formed with said chip mounting cross; and

a plurality of leads, said plurality of leads being arranged to extend toward said chip mounting cross;

(3) a plurality of bonding wires electrically connecting said plurality of leads with said plurality of bonding pads, respectively; and

(4) a resin body sealing said semiconductor chip, at least a portion of said plurality of leads, said chip mounting cross, said plurality of suspension leads and said plurality of bonding wires,

wherein said chip mounting cross has a first portion extending in a first direction and a second portion extending in a second direction which is a different direction from said first direction, said second portion intersecting said first portion,

wherein a width of at least a portion of each of said first and second portions of said chip mounting cross is wider than that of each of said plurality of suspension

leads.

wherein both ends of each of said first and second portions of said chip mounting cross are coupled with said plurality of suspension leads respectively,

wherein an intersecting portion of said first and second portions of said chip mounting cross is located at a substantially central portion of said rear surface of said semiconductor chip,

wherein said both ends of each of said first and second portions of said chip mounting cross are located at the peripheral portions of said rear surface of said semiconductor chip, and

wherein said rear surface of said semiconductor chip is fixed to said chip mounting cross and said both ends of each of said first and second portions at both of said central and peripheral portions of said rear surface of said semiconductor chip by an adhesive,

wherein said suspension leads and said chip mounting cross of said lead frame are continuously formed in an area of said semiconductor chip.

56. (Unamended) A semiconductor device according to Claim 55, wherein said first and second directions intersect each other at a substantially right angle.

57. (Unamended) A semiconductor device according to Claim 56, wherein said resin body has a tetragonal shape, wherein said plurality of leads extends toward four sides of said resin body, and wherein said plurality of suspension leads extend from said both ends of said first and second portions of said chip mounting cross toward four corners of said resin body.

58. (Unamended) A semiconductor device according to Claim 55, wherein a portion of said rear surface of said semiconductor chip is adhered to said first and second portions of said chip mounting cross, and wherein another portion of said rear surface of said semiconductor chip is contacted with said resin body.

59. (Unamended) A semiconductor device according to Claim 58, wherein said semiconductor chip has a tetragonal shape, and wherein said both ends of each of said first and second portions are located at the vicinity of four corners of said semiconductor chip.

60. (Unamended) A semiconductor device according to Claim 37, wherein said insulating tape has a closed frame shape.

61. (Unamended) A semiconductor device according to Claim 40, wherein said insulating tape has a closed frame shape.

62. (Unamended) A semiconductor device according to Claim 42, wherein said insulating tape has a closed frame shape.